#2

OIPE

RAW SEQUENCE LISTING DATE: 01/15/2002 PATENT APPLICATION: US/10/017,724 TIME: 18:09:11

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\01152002\J017724.raw



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- 3 <110> APPLICANT: McCarthy, Jeanette 5 <120> TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF VASCULAR DISEASE 7 <130> FILE REFERENCE: MMI-004 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/017,724
- C--> 9 <141> CURRENT FILING DATE: 2001-12-14
- 9 <150> PRIOR APPLICATION NUMBER: US 60/317,178
 - 10 <151> PRIOR FILING DATE: 2001-09-05
 - 12 <150> PRIOR APPLICATION NUMBER: US 60/329,958
 - 13 <151> PRIOR FILING DATE: 2001-10-16
 - 15 <160> NUMBER OF SEQ ID NOS: 11
 - 17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 - 19 <210> SEO ID NO: 1 20 <211> LENGTH: 5784
 - 21 <212> TYPE: DNA
 - 22 <213> ORGANISM: Homo Sapiens

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49 cocagoagag aggooggtoo tgtgacgtoa coagoaacac ctgottgggg coctogatoo 1500 50 agacacgggc ttgcagtctg agcaagtgtg acacccgcat ccggcaggac ggcggctgga 1560 51 gccactggtc accttggtct tcatgctctg tgacctgtgg agttggcaat atcacacgca 1620 52 teegtetetg caacteecca gtgeeccaga tggggggcaa gaattgeaaa gggagtggee 1680 53 gggagaccaa agcctgccag ggcgccccat gcccaatcga tggccgctgg agcccctggt 1740 54 cocceptages agreetycact greacetata cogqragat cogqragage acceptate 1800 55 gcaacagccc tgagcctcag tacggaggga aggcctgcgt gggggatgtg caggagcgtc 1860

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				_		-		-	_	tttttgtttt					-				
																ccacat			
											-					ttttcc			
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							aatgtagcg actgtcaaca												
	17 tgtgttgtgg ggtcaaccgt acaatggtgt gggaatgacg																		
	8 gtaccatatt tittgtaaat tatitatgit titctaaaca aatitatcgi ataggit																		
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			_	aaaa		tt t	tct										5784		
				D NO															
				H: 1.	172														
	<21					_													
				ISM:		o Sa	pien	S											
				NCE:			_	_			_	-		_	_				
		Val	Trp	Arg		Val	Leu	Leu	Ala		Trp	Val	Trp	Pro	Ser	Thr			
130	1		~ 3	1	5	_	_			10		_	_		15				
	Gln	Ala	Gly		Gin	Asp	Lys	Asp		Thr	Phe	Asp	Leu		Ser	Ile			
132	~	_	1	20	_	_			25		_			30		_			
	Ser	Asn		Asn	Arg	Lys	Thr		GLy	Ala	Lys	Gln		Arg	Gly	Pro			
134	3	D	35	77- 1	D	21.	m	40	D1	**- 1		51	45		-1				
	ASP		GTĀ	vaı	Pro	Ата	-	Arg	Pne	var	Arg		Asp	туг	Ile	Pro			
136	D == 0	50	1		3	3	55	Q	T	-1 -	m1	60	-1 -	34 - L	3	01			
138		val	ASII	Ald	ASP	ASP	Leu	ser	гĀг	TTE		ьys	тте	мет	Arg		•		
		C1	C1	Dho	nha	. •	шь»	21-	61 m	T 0	75	01 =	3	01	T	80			
140	гĀЗ	GLU	СТА	Pne		ьeu	Thr	Ата	GIN		ьys	GIN	Asp	GLY	Lys	ser			
	7	a 1	m	T	85	n 1	T	a1	a 1	90	01	T		a1 -	95	01			
141	Arg	GIY	THE		ьeu	Ala	Leu	GIU	_	PLO	GLY	Leu	ser		Arg	GIn			
	Dho	C1.,	Tla	100	000	7 ~~	01	Dwa	105	7.00	mh	т	7 ~~	110	mb	M			
143	PHE	GIU	115	Val	ser	ASII	СТА		Ата	Asp	1111	ьeu	_	ьеи	Thr	Tyr			
	m xx	т1.		C1	mh ~	7 20 00	II i o	120	17. 1	000	т	C1	125	171	<i>c</i> 1	T 0			
145	пр	130	ASP	СТУ	THI	Arg		val	Val	ser	ьeu		ASP	vaı	Gly	ren			
	77.		C	C1.	M	T	135	77-1	m L	17. 1	01	140	.1.	a 1	a1	mla -a			
148		ASP	ser	GIII	тгр	LуS 150	ASII	vaı	Thr	Val		vaı	Ala	GTÀ	Glu	160			
		Com	T 0	mi a	17-1		O	7 ~~	T	T la	155	D	170 1	71.	т				
	TAT	Ser	reu	HIS		СТА	Cys	ASP	ren		СТА	PIO	Val	Ата	Leu	ASP			
150	C1	Dro	Dha	m	165	174 ~	T ~	C1 -	A 1 ~	170	T	C	h	Wo +	175	17 n 1			
151	GIU	PIO	FIIG	180	GIU	птв	ьeu	GIII	185	GIU	гуд	ser	Arg		Tyr	val			
	λΙα	Tvo	C1**		λl-	7~~	C1	C^~		Dha	λ ~~	C1	T 0	190	C1 n	Agr			
154	нта	пλг	195	Ser	MIG	нту	GIU	200	ulb	File	Arg	сту		neu	Gln	ASII			
	Va 1	ui ~		V = 1	Dha	C1	λαn		W = 1	C1	λ c.~	Tla	205	e~~	1 170	Tvc			
T 7 7	ACT	UTO	пси	٧QT	FILE	GIU	uan	2GT	٧ат	$g_{\perp}u$	ush	TTG	пeп	SGT	Lys	пÃр			

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158 225				Gln	Gln	Glv	Gln		Ala	Glu	Tle	Asn		Ile	Ser	Glu	Asn
159 Thr Glu Thr Leu Arg Leu Gly Pro His Val Thr Thr Glu Tyr Val Gly 250 255 256 261		_	CyD	01	01			011		010							
161			G1n	Thr	T.e.ii	Δra		Glv	Pro	His	Val		Thr	Glu	Tvr	Val	-
161		1111	UIU	****	Dea	-	200	011							-1-		1
161		Pro	Ser	Ser	Glu		Arα	Pro	Glu	Va l		Glu	Ara	Ser	Cvs	Glu	Glu
163 Leu Gly Asn Met Val Gln Glu Leu Ser Gly Leu His Val Leu Val Asn Leu 275 280 280 285		110	001	001		**** 9		110	014		0,0						
164		Leu	Glv	Asn		Va 1	Gln	Glu	Len		Glv	Leu	His	Va l		Val	Asn
165 Gln Leu Ser Glu Asn Leu Lys Arg Val Ser Asn Asn Asn Gln Phe Leu Leu		DCu	Orl		1100	,	04	014		001	021	204					
166		Gln	T.eu		Glu	Δsn	I.e.ii	Lvs		Va1	Ser	Asn	Asp		Gln	Phe	Leu
167 Trp Glu Leu Ile Gly Gly Pro Pro Lys Thr Arg Asn Met Ser Ala Cys Ala 305 310 315 320 320 320 320 320 320 320 320 320 320 320 320 320 325 320 320 325 320 325 320 325 320 325 320 325 320 325 325 320 325		0111		501	014				,	,	001						
168 305		Trn		Len	Tle	Glv	Glv		Pro	Lvs	Thr	Ara		Met.	Ser	Ala	Cvs
169 Trp Gln Asp Gly Arg Phe Phe Ala Glu Asp Glu Thr Trp Val Val Asp 325 336 335 335 335 335 335 335 335 335 335 336 355 340 355 340 355 340 355 360 365 365 365 375 360 365 375 360 365 375 360 365 375 360 365 375 375 380 380 380 375 380 380 380 375 380		-	024	200	110	0-1				-1-						_	
170			Gln	Asp	Glv	Arσ		Phe	Ala	Glu	Asn		Thr	Trp	Val	Val	Asp
The content of the		P	02		011												
172		Ser	Cvs	Thr	Thr		Thr	Cvs	Lvs	Lvs		Lys	Thr	Ile	Cys	His	Gln
173 11e			-1-			-1-		-1-									
174 355 Ser Cys Leu His Ser Val Asp Gly Glu Glu Glu Gly Trp 175 Glu Cys Cys Pro Ser Cys Leu His Ser Val Asp Gly Glu Glu Glu Gly Trp 176 370 Ser Val Trp 375 380 380 177 Ser Pro Trp Ala Glu Trp Thr Gln Cys Ser Val Trp 380 400 179 Thr Gln Gln Arg Gly Arg Ser Cys Asp Val Thr Ser Asn Trp Asn Thr Cys Leu 415 180 Trp Gln Gln Arg Gly Arg Ser Cys Asp Val Thr Ser Asn Trp Cys Asp Thr Cys		Ile	Thr	Cvs	_	Pro	Ala	Thr	Cvs	Ala	Ser	Pro	Ser	Phe	Val	Glu	Gly
175																	-
176 370 Trp Ala Glu Trp Thr Gln Cys Ser Val Thr Cys Gly Ser Gly Alo 177 Ser Pro Trp Ala Glu Trp Thr Gln Cys Asp Val Thr Cys Gly Ser Gly Alo 180 Trp Gln Arg Gln Arg Ser Cys Asp Val Trr Ser Leu Ser Leu Asp Thr Cys Asp Thr Arg Ala Cys Ser Leu Cys Asp Thr Arg Ala Cys Ser Leu Cys Asp Thr Arg Ala Cys Ser Leu Cys Asp Thr Arg Ala Cys Asp He Cys Asp Thr Arg Ala Cys Asp He Cys Asp Thr Arg Ala Cys Asp Int Arg Arg Arg Arg Arg		Glu	Cvs		Pro	Ser	Cvs	Leu		Ser	Val	Asp	Gly	Glu	Glu	Gly	Trp
177			_	-1-			-1-									•	-
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180			G1n	Gln	Arg	Gly	Arq	Ser	Cys	Asp	Val	Thr	Ser	Asn	Thr	Cys	Leu
181 Gly Pro Ser Ile Gln Thr Arg Lys Ser Lys Cys Asp Thr 182							_		-	-							
182		Gly	Pro	Ser	Ile	Gln	Thr	Arg	Ala	Cys	Ser	Leu	Ser	Lys	Cys	Asp	Thr
184		•															
185 Cys Ser Val Thr Cys Gly Val Gly Asn Ile Thr Arg Ile Arg Leu Cys 186 450	183	Arg	Ile	Arg	Gln	Asp	Gly	Gly	Trp	Ser	His	Trp	Ser	Pro	Trp	Ser	Ser
186 450	184	-		435		_	_	_	440					445			
186 450	185	Cys	Ser	Val	Thr	Cys	Gly	Val	Gly	Asn	Ile	Thr	Arg	Ile	Arg	Leu	Cys
188 465 470 470 475 475 480 189 Arg Glu Thr Lys Ala Cys Glu Ala Pro Ile Asp Gly Arg 190 Trp Ser Pro Trp Ser Pro Trp Ser Ala Cys Thr Val Thr Cys Ala Gly 191 Trp Ser Pro Trp Ser Pro Ala Cys Thr Val Thr Cys Ala Gly 192 Trp Ser Glu Arg Glu Arg Thr Arg Ala Cys Thr Ser Ser Ser Ser Thr Ser Ser Thr Ser Ser Ser Thr Ser Ser Arg Arg Ser Trp Glu Pro Arg A	186	_	450			_		455					460				
189 Arg Glu Thr Lys Ala Cys Gln Gly Ala Pro Cys Pro Ile Asp Gly Arg 190 485	187	Asn	Ser	Pro	Val	Pro	Gln	Met	Gly	Gly	Lys	Asn	Cys	Lys	Gly	Ser	Gly
190																	
191 Trp Ser Pro Trp Ser Pro Trp Ser Ala Cys Thr Val Thr Cys Ala Gly 192 500 500 505 505 510 510 510 193 Gly Ile Arg Glu Arg Thr Arg Val Cys Asn Ser Pro Glu Pro Glu Pro Glu Tyr 194 515 515 520 520 525 526 526 526 525 525 525 526 526 526 526 527 5	189	Arg	Glu	Thr	Lys	Ala	Cys	Gln	Gly	Ala	Pro	Cys	Pro	Ile	Asp	Gly	Arg
192 500 700																	
193 Gly Ile Arg Glu Arg Thr Arg Val Cys Asn Ser Pro Glu Pro Gln Tyr 194	191	Trp	Ser	Pro	Trp	Ser	Pro	Trp	Ser	Ala	Cys	Thr	Val	Thr	Cys	Ala	Gly
194 515 520 525 614 Cys Ala Cys Val Gly Asp Val Gln Glu Arg Gln Met Cys Asn Asp Gln Met Cys Asn Asp Gln Met Cys Asn 196 530 535 540 560 560 555 555 560 560 560 555 555 560 560 560 570 570 570 575 5																	
195 Gly Gly Lys Ala Cys Val Gly Asp Val Gln Glu Arg Gln Met Cys Asn 196	193	Gly	Ile	Arg	Glu	Arg	Thr	Arg		Cys	Asn	Ser	Pro	Glu	Pro	Gln	Tyr
196 530 535 540 197 Lys Arg Ser Cys Pro Val Asp Gly Cys Leu Ser Asn Pro Cys Phe Pro 198 545																	
197 Lys Arg Ser Cys Pro Val Asp Gly Cys Leu Ser Asn Pro Cys Phe Pro 198 545	195	Gly	Gly	Lys	Ala	Cys	Val	Gly	Asp	Val	Gln	Glu	Arg	Gln	Met	Cys	Asn
198 545 550 555 560 199 Gly Ala Gln Cys Ser Ser Phe Pro Asp Gly Ser Trp Ser Cys Gly Phe 60 Phe 200 565 565 570 Fro Ser Cys Gly Phe 201 Cys Pro Val Gly Phe Leu Gly Asn Gly Thr His Cys Glu Asp Leu Asp 202 580 580 585 203 Glu Cys Ala Leu Val Pro Asp Ile Cys Phe Ser Thr Ser Lys Val Pro																	
199 Gly Ala Gln Cys Ser Ser Phe Pro Asp Gly Ser Trp Ser Cys Gly Phe 200 565 575 575 575 575 201 Cys Pro Val Gly Phe Leu Gly Asn Gly Thr His Cys Glu Asp Leu Asp 202 580 585 585 590 590 203 Glu Cys Ala Leu Val Pro Asp Ile Cys Phe Ser Thr Ser Lys Val Pro	197	Lys	Arg	Ser	Cys	Pro		Asp	Gly	Cys	Leu		Asn	Pro	Cys	Phe	
200 565 570 575 201 Cys Pro Val Gly Phe Leu Gly Asn Gly Thr His Cys Glu Asp Leu Asp 202 580 585 590 203 Glu Cys Ala Leu Val Pro Asp Ile Cys Phe Ser Thr Ser Lys Val Pro																_	
201 Cys Pro Val Gly Phe Leu Gly Asn Gly Thr His Cys Glu Asp Leu Asp 202 580 585 590 203 Glu Cys Ala Leu Val Pro Asp Ile Cys Phe Ser Thr Ser Lys Val Pro		Gly	Ala	Gln	Cys		Ser	Phe	Pro	Asp		Ser	Trp	Ser	Cys		Phe
202 580 585 590 203 Glu Cys Ala Leu Val Pro Asp Ile Cys Phe Ser Thr Ser Lys Val Pro								_				*	_		_		_
203 Glu Cys Ala Leu Val Pro Asp Ile Cys Phe Ser Thr Ser Lys Val Pro		Суѕ	Pro	Val		Phe	Leu	Gly	Asn		Thr	His	Cys	Glu		Leu	Asp
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204 595 600 605		Glu	Cys		Leu	Val	Pro	Asp		Cys	Phe	Ser	Thr		Lys	val	Pro
	204			595					600					605			

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209 210	Thr	Glu	Lys	Gln	Val 645	Cys	Glu	Pro	Glu	Asn 650	Pro	Cys	Lys	Asp	Lys 655	Thr
211 212	His	Asn	Cys	His 660	Lys	His	Ala	Glu	Cys 665	Ile	Tyr	Leu	Gly	His 670	Phe	Ser
213 214	Asp	Pro	Met 675	Tyr	Lys	Cys	Glu	Cys 680	Gln	Thr	Gly	Tyr	Ala 685	Gly	Asp	Gly
	Leu	Ile 690	Cys	Gly	Glu	Asp	Ser 695	Asp	Leu	Asp	Gly	Trp 700	Pro	Asn	Leu	Asn
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		His	Leu	Pro	Asn 725		Gly	Gln	Glu			Asp	Lys	Asp	Gly 735	
	Gly	Asp	Ala	Cys 740	. – -	Asp	Asp	Asp	Asp 745		Asp	Gly	Val	Thr 750		Glu
	Lys	Asp	Asn 755	•	Gln	Leu	Leu	Phe	Asn	Pro	Arg	Gln	Ala 765		Tyr	Asp
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		770 Ala	Gln	Ile	Asp		775 Asp	Asn	Asn	Gly		780 Gly	Asp	Ala	Cys	
229	785 Val	Asp	Ile	Asp		790 Asp	Asp	Val	Phe		795 Glu	Arg	Asp	Asn		800 Pro
	Tyr	Va1	Tyr		805 Thr	Asp	Gln	Arg	Asp	810 Thr	Asp	Gly	Asp	_	815 Val	Gly
	Asp	His		820 Asp	Asn	Cys	Pro	Leu	825 Val	His	Asn	Pro	_	830 Gln	Thr	Asp
234 235	Va1	Asp	835 Asn	Asp	Leu	Val	Gly	840 Asp	Gln	Cys	Asp	Asn	845 Asn	Glu	Asp	Ile
236 237	Asp	850 Asp	Asp	Gly	His	Gln	855 Asn	Asn	Gln	Asp	Asn	860 Cys	Pro	Tyr	Ile	Ser
	865 Asn	Ala	Asn	Gln	Ala	870 Asp	His	Asp	Arg	Asp	875 Gly	Gln	Gly	Asp	Ala	880 Cys
240					885	_			Val	890				_	895	
242				900					905 Glu					910		_
244			915					920	Asp				925	_	_	_
246	_	930		_	_	_	935		_		-	940			_	
248	945	-		_		950			Ala		955			_		960
250					965			_	Pro	970					975	
252				980	*				Gly 985					990		
253	Asn	Ser	Asp	Pro	Gly	Ile	Ala	Val	Gly	Phe	Asp	Glu	Phe	Gly	Ser	Val

Use of n and/or Xaa has been detected in the Sequence Listing. Leview the Sequence Listing to insure a corresponding aplanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/017,724

DATE: 01/15/2002 TIME: 18:08:12

Input Set ::A:\Seqlist.txt

Output Set: N:\CRF3\01152002\J017724.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

```
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:391 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:396 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:404 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:478 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:493 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:796\ M:341\ W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:877 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:893 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
```

VERIFICATION SUMMARY

DATE: 01/15/2002 PATENT APPLICATION: US/10/017,724 TIME: 18:08:12

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\01152002\J017724.raw

L:960 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:961 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:969 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3